

Amendments to the Claims

1. (Currently amended) A process for producing an aliphatic polyester, comprising:
subjecting a cyclic ester containing water and an alcohol which function as initiators or/and
molecular weight-adjusting agents to ring-opening polymerization while controlling (A) a total
concentration in a range of above 0.09 mol% and below 2.0 mol% of proton sources which
include carboxyl (carboxylic acid)-source compounds including water, free α -hydroxycarboxylic
acid, dimer thereof and also alkoxy carbonyl (ester)-source compounds including the alcohol,
and (B) a ratio in a range of 100/0 – 2/98 between a mol concentration of the carboxyl
(carboxylic acid)-source compounds and a mol concentration of the alkoxy carbonyl (ester)-
source compounds, so as to provide a desired weight-average molecular weight and a desired
hydrolyzation rate constant, respectively, of resultant aliphatic polyester by varying the contents
of the water and the alcohol in the cyclic ester.
2. (Cancelled)
3. (Original) A production process according to Claim 1, wherein the carboxylic
acid/ester mol ratio is in a range of 99/1 - 5/95.
4. (Cancelled)
5. (Previously presented) A production process according to Claim 1, wherein the cyclic
ester comprises glycolide alone or a mixture of at least 60 wt.% of glycolide and at most 40 wt.%
of another cyclic monomer copolymerizable with glycolide by
ring-opening polymerization.
6. (Previously presented) A production process according to Claim 1, wherein the cyclic
ester after adjusting the total concentration of proton sources therein is melted under heating in

the presence of a catalyst and then the molten cyclic ester is subjected to ring-opening polymerization to precipitate a resultant polymer.

7. (Previously presented) A production process according to Claim 6, wherein the cyclic ester after adjusting the total concentration of proton sources therein is melted under heating in the presence of a catalyst, then the molten cyclic ester is transferred to a polymerization apparatus equipped with a plurality of tubes, and the cyclic ester is subjected to ring-opening polymerization in an air-tight state within each tube.

8. (Original) A production process according to Claim 7, wherein the plurality of tubes comprise tubes having both ends that can be open and closed.

9. (Previously presented) A production process according to Claim 6, wherein the cyclic ester after adjusting the total concentration of proton sources therein is melted under heating in the presence of a catalyst in a melting vessel, then the molten cyclic ester is subjected to ring-opening polymerization in a reaction vessel equipped with a stirrer, and then a resultant polymer is once cooled to be solidified and subjected to solid phase polymerization below the melting point of the polymer.

10. (Previously presented) A production process according to Claim 1, wherein the aliphatic polyester produced by the ring-opening polymerization is compounded with a carboxyl group-capping agent.

11. (Original) A production process according to Claim 10, wherein 100 wt. parts of the aliphatic polyester is compounded with 0.1 - 1.8 wt. parts of the carboxyl group-capping agent.

12. (Previously presented) A production process according to Claim 10, wherein the carboxyl group-capping agent is selected from the group consisting of monocarbodiimides, polycarbodiimides, oxazolines, oxazines and epoxy compounds.
13. (Previously presented) A production process according to Claim 10, wherein the carboxyl group-capping agent is a monocarbodiimide.
14. (Previously presented) A production process according to Claim 1, wherein 100 wt. parts of the aliphatic polyester produced by the ring-opening polymerization is compounded with at most 3 wt. parts of a thermal stabilizer.